

REMARKS

Claims 1-15, 18-23 and 25-31 are in the application.

Claims 16, 17 and 24 were canceled without prejudice.

Claims 1, 2, 4, 9, 13-15, 18, 20, 21, 25-27, and 29-31 were amended to better claim the invention.

§103 Rejections

In the Office Action, claims 1-3, 10-14, 18-20 and 28-31 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent 6,141,347 to Shaughnessy et al., hereinafter “Shaughnessy,” in view of U.S. Patent 6,728,226 to Naito et al. hereinafter “Natio.” Claims 5-9, 15-17, 21-24 and 26-27 were rejected under 35 U.S.C. § 103 as being unpatentable over Shaughnessy in view of Naito and in further view of U.S. Patent 6,308,079 to Pan et al., hereinafter “Pan.” Claim 4 was rejected under 35 U.S.C. § 103 as being unpatentable over Shaughnessy in view of Naito and in further view of U.S. Patent 6,385,461 to Raith et al., hereinafter “Raith.” Claim 25 was rejected under 35 U.S.C. § 103 as being unpatentable over Shaughnessy in view of Naito and Pan and in further view of Raith.

Brief Description of the Cited Art

Shaughnessy describes a network where one or more subscriber units (wireless mobile units) operated by users are affiliated and serviced by a site (base station). Each subscriber unit is associated with a talk group identifier (ID). The site maintains a map that maps multicast addresses with the talk group IDs of subscriber units affiliated with the site. If a site receives traffic based on a multicast address that maps to a talk group ID associated with affiliated subscriber units, the site includes the talk group ID in the traffic and transmits it over wireless channels to the subscriber units. Because the talk group ID is included in the transmitted traffic, subscriber units associated with the talk group ID process the traffic and subscriber units not associated with the talk group ID disregard the traffic.

Natio describes a transmission power controlling technique for a multicast message communicating system. The technique uses multicast messages transmitted on a multicast channel to control the power output of a base station and one or more mobile units. A multicast

message is transmitted on the channel from the base station to the mobile units to increase or decrease their power. Likewise, a multicast message is transmitted on the channel from the mobile units to the base station to increase or decrease the base station power when transmitting to the particular mobile units.

Pan describes a technique for providing duplex communications within talkgroups. According to the technique, a sub-talkgroup which is part of a talkgroup is assigned one or more inbound codes. The talkgroup is assigned one or more outbound codes. Members of the sub-talkgroup may simultaneously transmit voice information using the inbound codes. The voice information is summed and re-transmitted to the talk group using outbound codes. The voice information is summed in a manner that enables a talker that generated the voice information to not decode the voice content (thus not play back the voice content at the talker's mobile station).

Raith discloses a technique for allowing users to join active group calls. Information regarding active group calls is broadcasted on a channel from a base station to one or more mobile stations. The mobile stations receive the information and display a list of active group calls to users at the mobile stations. A user at a particular mobile station may then use the information displayed to make a decision to join an active group call.

Brief Description of the Present Invention

The present invention relates to a technique for transmitting multicast messages in a wireless communication network to a multicast group. According to an aspect of the invention, a base station having a plurality of wireless channels receives a multicast message addressed to the multicast group. In response to the message, the base station allocates a wireless channel for transmitting the multicast message to members of the multicast group. The base station then sends the multicast message to the members associated with the multicast group via the allocated wireless channel.

Differences Between the Cited Art and the Claimed Invention

Representative claim 1 recites in relevant part:

1. A method of multicasting messages in a wireless network comprising:

receiving a multicast message addressed to a multicast group at a base station processor having a plurality of wireless channels;

in response to said multicast message, allocating a wireless channel from said plurality of wireless channels wherein the allocated wireless channel is dedicated for the transmission of multicast messages to members associated with said multicast group; ...

The Applicants respectfully submit that Shaughnessy, Naito, Pan and Raith, taken either singly or in combination, do not teach or suggest the Applicants' claimed *in response to said multicast message, allocating a wireless channel from said plurality of wireless channels wherein the allocated wireless channel is dedicated for the transmission of multicast messages to members associated with said multicast group.*

In the Office Action, the Examiner has indicated that Shaughnessy does not disclose a wireless channel that is dedicated to transmitting multicast messages. Similarly, the Applicants submit that Pan, Raith and Naito do not describe a wireless channel that is allocated in response to a multicast message that is destined for a plurality of multicast group members. Specifically, Pan does not disclose multicasting let alone a wireless channel dedicated to transmitting multicast messages. Raith discloses broadcasting for purposes of disseminating group call information to mobile stations, however, Raith is silent with regards to allocating a multicast channel in response to a multicast message. Likewise, Naito discloses a multicast channel that is used to transmit multicast messages to mobile stations, however, Naito fails to disclose allocating the multicast channel in response to a multicast message.

Because of the absence of *allocating a wireless channel in response to a multicast message* in Shaughnessy, Pan, Raith and Naito, the Applicants respectfully submit that these references do not render claims 1-31 obvious and therefore respectfully request that the above rejections to these claims be withdrawn.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By Michael J. Badzinski
Michael J. Badzinski
Registration No. 51,425
Telephone: (978) 341-0036
Facsimile: (978) 341-0136

Concord, MA 01742-9133

Dated: 9/19/05